

# NCDOT HYDRAULICS DELIVERABLES

## September 17, 2024

- 2HY1
  - Hydraulic Planning Report
  - Preliminary Stormwater Management Plan
  - Hydraulic Control Letter
  - Comments on Preliminary Roadway Plans/DRPS
  - Preliminary Hydroplaning Assessment Report
- 2HY2
  - CADD Files
    - The DRN file will be found in the Drainage folder under the root directory of the project. This allows it to be accessible to Roadway. All other CADD files will be stored under the Hydraulics folder.
    - DRN: Drainage\*
      - \* if being done by In House staff....the DRN file will contain Text Labels, Ditch Details, and Line work for ditch flows and lateral ditch chevrons. The file will also reference all Drainage and Utility files and Ditch Corridor Model files.
      - \*If being done by PEFs for PEF Roadway firms, Text, Ditch Details, and Ditch Line work can be broken out into separate DRN files. The base DRN file will still reference all necessary files.
      - DRN should contain a map explaining how your Drainage and Utility files and Ditch Corridor Model files are organized. Map should be a on "Scratch" level.
    - DUM: Drainage and Utility Model contains Nodes, Conduits, and drainage areas.
    - DCM: Ditch Corridor Model
    - BSR: Bridge Survey Report
    - CSR: Culvert Survey Report.
    - ETM: Existing Terrain Model
    - PTM: Proposed Terrain Model
    - PRM: Permit Contains Wetland and Buffer Impacts
    - SUR: Hydro Survey File contains any survey information picked up by the Hydraulics Unit
    - SFC: State Floodplain Compliance Add Workmap to clearly define.
    - Standard Roadway Naming Conventions
      - PPL: Plan Profile Layout contains the Named Boundary File. Can also contain Drawing and Sheet Models
      - PLS: Plan Sheet Model Optional
      - PLD: Plan Drawing Model Optional
      - XPL: Cross Section File Cross Section Plan Layout
      - XSD: Cross Section Drawing Model file Optional
      - XSS: Cross Section Sheet Model Optional
      - PFL: Profile
      - PFD: Profile Drawing Model Optional

- PFS: Profile Sheet Model Optional
- Documentation
  - Pre-Design Meeting Documentation
  - Field survey notes
  - Photos from Site Visit
  - Redline PDFs created from the CADD files mentioned above.
    - Hydraulic Survey Reports for Major Structures
    - Drainage Plans
  - Drainage Summary Sheet
  - SCM Summary Sheet
    - Storm and Inlet Computation Sheets
    - Pipe Data Sheets
    - Ditch Calculations (if not provided on the redline plan sheets)
    - Outlet Analysis
    - CP4B meeting minutes and plan sheets
    - Additional Information Requests
      - Additional survey requests
      - Subsurface investigation requests
- 3HY1
  - Railroad Drainage Design Packages (if applicable)
  - FMP Submittals
    - HEC RAS Models
    - FEMA Coordination Form
    - Title Sheet or Vicinity Map
    - Existing Terrain Model (ETM)
    - NCDOT Bridge/Culvert Report
    - Hydraulic Model Narrative
    - Output Comparison Table
    - Parcel/Property Owner Information
    - Documentation of FMP, if applicable
    - Other files, if applicable
  - Stormwater Management Plan
  - Hydraulic Drainage Summary Sheet
  - Environmental Impact Permit Drawings (PRM)
    - Plan View showing impacts
    - Cross Sections
    - Profiles
    - Impact Summary Sheets
  - Merger CP4C Meeting Package and Meeting Minutes